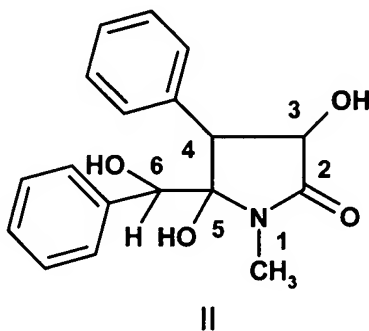


**Amendments to the claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

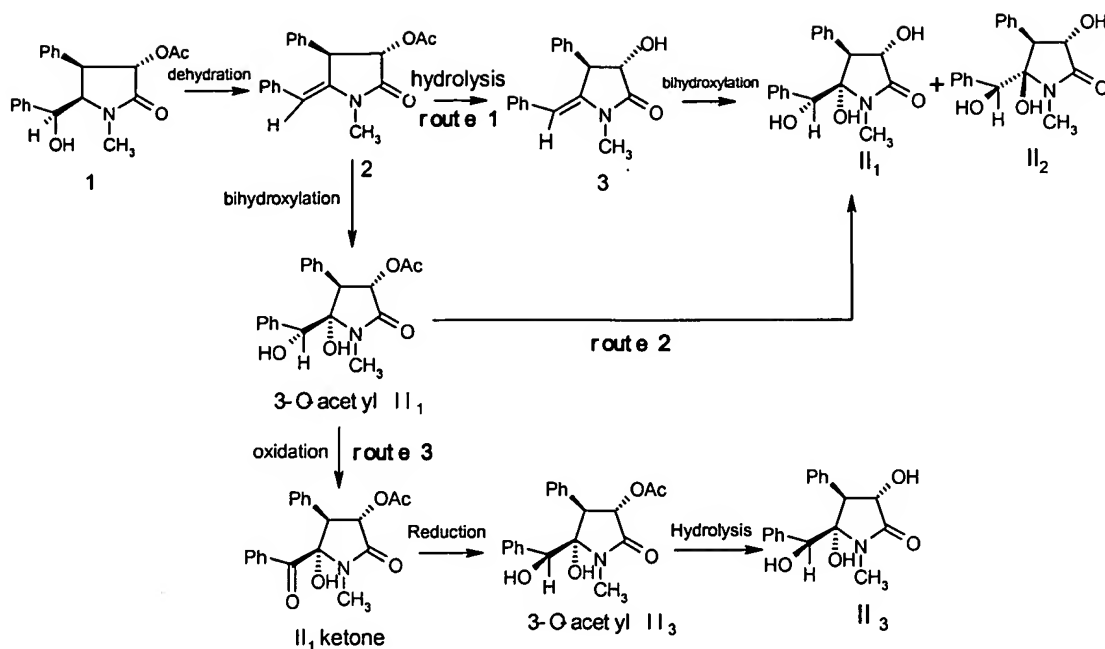
1. (original) An optical active C<sub>5</sub>-hydroxyl derivative of clausenamide represented by general formula II,



which is:

racemic II<sub>1</sub>, configuration (3S\*,4S\*,5S\*,6R\*), or  
racemic II<sub>2</sub>, configuration (3S\*,4S\*,5R\*,6S\*), or  
racemic II<sub>3</sub>, configuration (3S\*,4S\*,5S\*,6S\*), or  
optical active II<sub>1</sub>, configuration (3S,4S,5S,6R) or (3R,4R,5R,6S), or  
optical active II<sub>2</sub>, configuration (3S,4S,5R,6S) or (3R,4R,5S,6R), or  
optical active II<sub>3</sub>, configuration (3R,4R,5R,6R) or (3S,4S,5S,6S).

2. (original) A preparation method of the optical active C<sub>5</sub>-hydroxyl derivative of clausenamide according to claim 1, comprising:



(a) dehydration of (rac)-3-O-acetyl-clausenamide (1) or an optical isomer thereof, the dehydrating agent may be  $\text{POCl}_3/\text{Py}$ ; or to prepare the methylsulfonate of clausenamide, then cleave the methylsulfonate group with DBU;

(b) hydrolysis of (rac)-3-O-acetyl- $\Delta^{5,6}$ -clausenamide (2) or an optical isomer thereof, which can be carried out under conventional acid or base conditions;

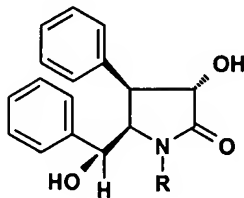
(c) bihydroxylation of (rac)- $\Delta^{5,6}$ -clausenamide (3) or an optical isomer thereof, which can be achieved using  $\text{OsO}_4/\text{NMO}$ ,  $\text{KHSO}_5/\text{CH}_3\text{COCF}_3$ ,  $\text{WO}_3/\text{H}_2\text{O}_2$ ;

(d) oxidation of (3S\*, 4S\*, 5S\*, 6R\*)-3-O-acetyl-5-hydroxy clausenamide (3-O-acetyl II<sub>1</sub>) or an optical active isomer thereof, which may be carried out with oxidants such as  $\text{KMnO}_4/\text{CuSO}_4$ ,  $\text{MnO}_2$ ,  $\text{DMSO}/\text{ClCOCOC}/\text{TEA}$ ,  $\text{DMSO}/\text{TFAA}/\text{TEA}$ , etc;

(e) deduction of (3S\*, 4S\*, 5S\*)-3-O-acetyl-5-hydroxy- clausenamidone (II<sub>1</sub> ketone) or an optical active isomer thereof, which can be carried out using various borohydrides, such as sodium borohydride or lithium tri-sec-butyl borohydride;

(f) hydrolysis of (3S\*, 4S\*, 5S\*, 6S\*)-3-O-acetyl-5-hydroxy- clausenamide (II<sub>3</sub>) or an optical active isomer thereof, which may be carried out using various acids or bases, or  $\text{Sm}/\text{I}_2/\text{CH}_3\text{OH}$ .

3. (currently amended) A N-substituted clausenamide derivative represented by general formula (III),





III



~~characterized that~~ wherein:

relative configuration (3S\*,4R\*,5R\*,6S\*),

R is selected from  $\text{CH}_2\text{COR}^1$ ,  $\text{CH}_2\text{OCH}_2\text{COR}^2$ , and  $\text{CH}_2\text{R}^3$ ,

$\text{R}^1$  is selected from OH,  $\text{NH}_2$ ,  $\text{C}_{1-8}$  alkoxy, , and  ;

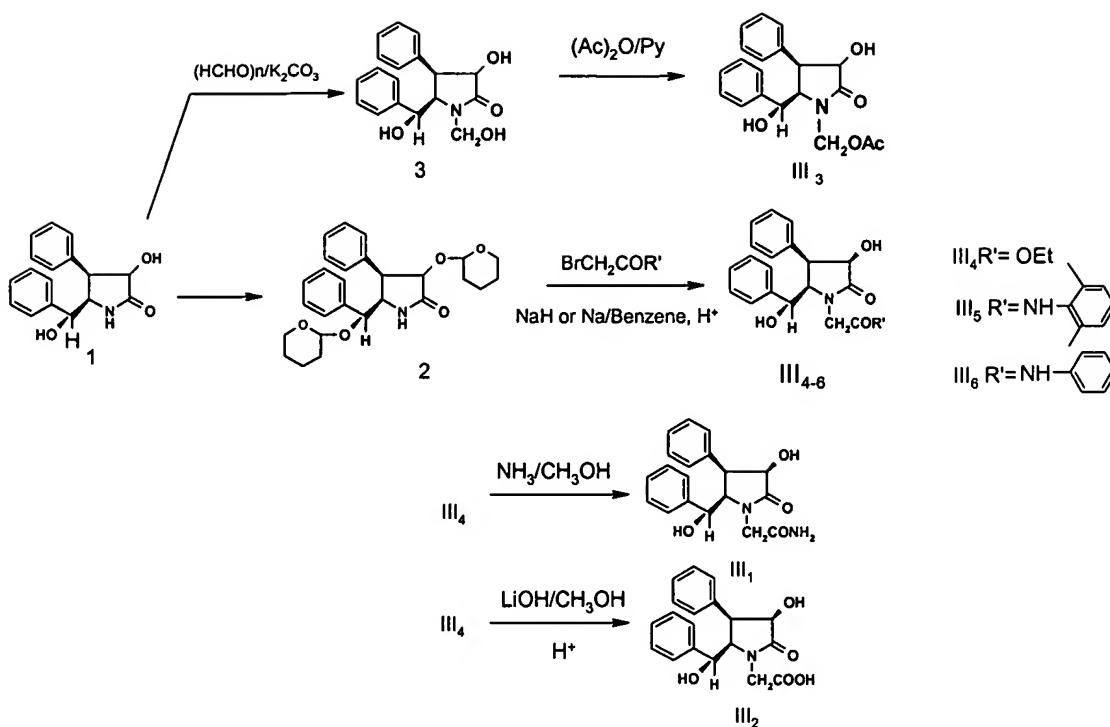
$\text{R}^2$  is selected from  $\text{C}_{1-8}$  alkoxy, and

$\text{R}^3$  is selected from ,  .

4. (currently amended) A preparation method of the N-substituted clausenamide derivative according to claim 3, ~~characterized that~~ wherein:

in case R is selected from  $\text{CH}_2\text{R}^3$ , which is affordable via the the reduction of N-benzyl- or N-p-methoxybenzyl-clausenamidone;

in case R is selected from  $\text{CH}_2\text{COR}^1$  or  $\text{CH}_2\text{OCH}_2\text{COR}^2$ , comprising the following steps:



- (a) reacting norclausenamide (1) with dihydropyran under the catalysis of pyridinium *p*-toluenesulfonate to give 3,6-di-O-tetrahydropyran- norclausenamide;
- (b) dissolving 3,6-Di-O-tetrahydropyran-norclausenamide (2) in anhydrous benzene, adding sodium hydride, heating and adding bromoacetate, then de-protecting the protection group of tetrahydropyran to give N-(alkoxy/alkylaminocarbonylmethylene)norclausenamides;
- (c) treating N-(ethoxycarbonylmethylene)norclausenamide with a largely excess amount of  $\text{NH}_3/\text{CH}_3\text{OH}$  solution to obtain N-(aminocarbonylmethylene)norclausenamide;
- (d) reacting norclausenamide with paraformaldehyde and potassium carbonate to give N-(hydroxymethyl)norclausenamide;
- (e) reacting N-(hydroxymethyl)norclausenamide with corresponding acid anhydride to prepare the corresponding N-(acyloxymethylene)- norclausenamide.

5. (currently amended)      A pharmaceutical composition comprising a pharmacological effective amount of any compound according to claim 1 ~~or 3~~ and a pharmaceutically acceptable carrier or excipient.

6. (currently amended)      Use of a compound according to claim 1 ~~or 3~~ for the preparation of medicaments as nootropic and anti-aging drugs.